

ABSTRACT

A circuit capable of improving communication quality. In this circuit, constant-envelope signal generating section (101) generates a first constant-envelope signal and a second constant-envelope signal from input signals (Si, Sq). Phase-shifter (102a) shifts the phase of the first constant-envelope signal by $+\alpha^\circ$ and phase-shifter (102b) shifts the phase of the second constant-envelope signal by $+\beta^\circ$. Local signal phase-shifter (107a) shifts the phase of the local signal from local oscillator (106) by $-\alpha^\circ$, and local signal phase-shifter (107b) shifts the phase of the local signal from local oscillator (106) by $-\beta^\circ$. Mixers (103a, 103b) performs frequency-conversion of the first constant-envelope signal and the second constant-envelope signal from phase shifters (102a, 102b) using the local signals from local signal phase-shifters (107a, 107b). Amplifiers (104a, 104b) amplify signals from mixers (103a, 103b). Combining circuit (105) combines signals from amplifiers (104a, 104b).